

Attachment 11

Program Preferences

**Integrated Regional Water Management Implementation
Prop 84, Round 1**

Santa Ana Watershed Project Authority

**Santa Ana One Water One Watershed IRWM
Prop 84, Round 1 Implementation Proposal**

Program Preferences

1. Regional Projects or Programs

One of the principles applied during the development of the One Waters One Watershed (OWOW) Plan was the idea that the Santa Ana River Watershed be viewed as a holistic system where activities in one geographic area or undertaken within one functional discipline, such as flood control or water supply, would have a distinct influence elsewhere in the system. In order to solve problems in a cost-effective manner, it was necessary to develop regional projects or programs that addressed the Watershed in a systematic manner. In order to encourage a regional approach, projects considered for funding for this portfolio were scored on the number of partnerships established as one of the selection criteria. The Steering Committee determined that a regional approach could be encouraged in this manner and this resulting project portfolio addresses regional problems based around three general themes.

First, two projects that address use of recycled water for groundwater recharge in the Orange County Groundwater Basin were selected. These projects will allow the lower portion of the watershed to develop more reliable local water supply. Secondly, six projects were selected that addressed clean-up of impaired groundwater basins. As more than 60% of the water resources in the Santa Ana Watershed are dependent on groundwater. Planning and developing the infrastructure that restores water from impaired basins is paramount. Finally, five flood control/ habitat projects were selected. These projects support the increased flexibility now demanded of our flood system, a system that provides adequate protection of life and property while providing water quality and habitat benefits. The water quality benefits accrue to all downstream interests and the flood system in the Santa Ana Watershed provides important habitat corridors among all of the major open space areas in the region.

2. Integrate Water Management Programs and Projects within a Hydrologic Region

The planning area for the OWOW program consists of the entire Santa Ana subregion as identified by the Department of Water Resources. These boundaries correspond to the jurisdiction of the Santa Ana Regional Water Quality Control Board.

Projects selected for this portfolio were selected using objective project criteria developed by the OWOW Steering Committee to implement the OWOW plan. The Steering Committee selected a portfolio of projects that would provide a maximum regional benefit with the available funds for the first round of project implementation. Projects were selected to develop water supply in Orange County through increased recycling and groundwater recharge, develop supply from degraded groundwater basins in Orange, Riverside and San Bernardino Counties while improving groundwater quality and to improve surface water quality through the development of improved flood and treatment wetlands in Orange, Riverside and San Bernardino Counties.

The Steering Committee project selection process was contingent upon 1) providing the maximum number of project benefits possible and 2) providing those benefits to the greatest geographic area possible.

3. Resolve Water-Related Conflicts within or between Regions

None of the projects listed in this portfolio directly resolve water-related conflicts within or between regions. However development of the OWOW plan and the subsequent consideration of projects for implementation identified potential issues related to surface water flows between the upper and lower basins as the result of increased water recycling. As a result, SAWPA completed initial studies looking at the impacts of water recycling projects on surface water flows available for use downstream. These initial studies will form the basis of a detailed analysis that will be part of the next OWOW plan update.

4. Contribute to Attainment of CALFED Bay-Delta Program Objectives

One of the core program goals of the CALFED Bay-Delta Program is the Water Supply Reliability Program. This program seeks to reduce the mismatch between Delta water supplies, and current and projected beneficial uses dependent upon the Bay-Delta system. The OWOW plan is consistent with this objective as it envisions new term reliability issues with Bay-Delta water deliveries and the possibility of reduced deliveries in the future.

Both of the projects that will enhance the use of recycled water and provide direct groundwater recharge benefits (Groundwater Replenishment System-Flow Equalization and Sludge Dewatering, Odor Control, and Primary Sludge Thickening) will directly offset imported water demands in Orange County and thereby reduce the need to import water from the Bay-Delta.

Six projects allow the use of or facilitate the movement of water derived from lower quality groundwater sources. By improving the quality and allowing the use of groundwater resources that currently do not meet drinking water standards local sources not currently available can directly offset the need for Bay-Delta imports. Four projects (Perris II Desalination Facility, Perchlorate Wellhead Treatment System Pipeline, Chino Creek Wellfield Development and Impaired Groundwater Recovery) allow clean-up and use of water from degraded groundwater basins. The Arlington Desalter Interconnection project allows for more efficient transfer of water derived from salty groundwater basins. Water quality and supply development from basins with a legacy of salt contamination is dependent upon disposal of brine produced as a by-product of desalting. The Inland Empire Brine Line Rehabilitation and Recovery project supports those efforts.

Several of the flood control and habitat projects also provide secondary water supply benefits as they provide recharge to the groundwater basins rather than transferring water to the ocean before it can be used.

5. Address Water Supply or Water Quality Needs of Disadvantaged Communities in the Region

Five of the projects within this project portfolio provide benefits to disadvantaged communities. However, none of the projects listed are requesting a waiver of the cost share requirement. One of the projects claims an indirect benefit to disadvantaged communities by enhancing the natural

environment in the flood channels. The Santa Ana Watershed Vireo Monitoring project has and will continue to identify areas where habitat values are worth preserving and restoring. Often these areas

are the only “green space” near the community. Low income communities along the Santa Ana River are often under-built for parks and other open space opportunities. For example, the City of Santa Ana, a community along the river has one of the highest population densities and lowest parkland ratios in the State.

More direct benefits are provided by the other four projects. Both the Groundwater Replenishment System-flow Equalization Project and the Sludge Dewatering, Odor Control and Primary Sludge Thickening Project serve similar populations as the projects are tightly linked. Together the projects will increase the volume of treated wastewater by approximately 34 mgd (38,000 afy) to yield approximately 30 mgd (31,000 afy) of recycled water for Orange County. The purified recycled water will be a new local supply with much lower salinity than the alternative “no project” imported water. While the entire service area of the two sponsoring agencies is not disadvantaged, the projects will benefit certain “pockets” of disadvantaged communities within the Orange County region, such as cities of Santa Ana and Garden Grove.

The Perris II Desalter project will ultimately generate on the order of 1,000 AF/yr of new water supply (enough water to supply over 2,000 families [over 6,700 people]) that will primarily serve disadvantaged communities (including the communities of Quail Valley and Sun City within the recently-incorporated City of Menifee).

Another project that supports disadvantaged communities will be the Perchlorate Wellhead Treatment System Pipeline. According to the income survey completed for SAWPA in 2008, over 50% of the census tracts within the project area served by the Perchlorate Wellhead Treatment System Pipeline are disadvantaged (with one tract being severely disadvantaged). Groundwater contaminated with perchlorate, VOCs and nitrates has severely limited water production in these disadvantaged areas. Water produced and treated as a result of this Project would be used to serve these communities thereby reducing the need to purchase expensive imported water supplies. An additional benefit of this Project would include stabilizing water supplies rendering them more reliable for future use. Finally the Chino Creek Wellfield Development project will preserve a low-cost, local source (groundwater) for those areas currently receiving Chino I Desalter water (the City of Chino, Chino Hills, Norco, the Santa Ana Water Company, and the Jurupa Community Services District). Based on the Year 2000 Census information, Disadvantaged Communities make-up approximately 41% of the area serviced by the Chino I Desalter.

6. Integrate Water Management with Land Use Planning

The flood projects within this portfolio most closely link water management with land use planning. The flood system, including the Santa Ana River, provides multiple regional benefits and the proposed projects within this portfolio enhance those benefits. In re-purposing the flood system to provide additional benefits, the flood levees have supported a regional trail system, including the Santa Ana River Trail and Parkway. This trail planned and built in conjunction with flood control agencies, provides an important recreation and transportation linkage across the watershed. Portions of the easement and access roads created as part of the Inland Empire Brine Line project will later be used to support this trail system.

Throughout the watershed, protection and enhancement of habitat for threatened and endangered species occurs within the flood system. The recovery of the least Bell's Vireo, an endangered bird species, from less than 50 breeding pairs within the watershed primarily occurred within flood control

easements. The flood projects within this portfolio improve upon those successes by incorporating opportunities for habitat into the design and also providing in some cases, educational opportunities for the public. One project, the East Garden Grove Wintersburg Channel Urban Runoff Diversion incorporates low-flow treatment using wetlands into the design of an existing park enhancing educational opportunities and aesthetics while improving water quality.

7. Storm Water Flood Management Project Benefits

Four of the thirteen projects in the OWOW project portfolio specifically address flood management within in the region, and an additional project provides crucial data needed to restore and manage threatened and endangered species along riparian flood corridors. The link between flood plain management and the development of additional local water supply is an important concept discussed in the OWOW plan. Initially, the flood control system was developed to quickly move flood waters out of the region to the ocean. A flood system with the single major function of protecting life and property often depends on concrete-lined channels with vertical walls. There is little opportunity to put the stormwater to additional beneficial use in such a system.

Fortunately, much of the flood system of the Santa Ana River Watershed is soft-bottomed and the flood system can provide additional benefits, including water quality, habitat and supply benefits. The mainstream of the Santa Ana River is about 80% soft-bottomed and in some reaches significant groundwater recharge occurs. A flood system that retains water for longer periods, at a minimum, provides significant regional benefit.

All of the flood projects provide multiple regional benefits, including water quality benefits, ecosystem enhancements, reductions in in-stream erosion and sediment transfer, and provide for additional groundwater recharge, either by providing in-basin recharge opportunities or by holding peak flows so that they can be recharged or otherwise put to beneficial use downstream.

The East Garden Grove Wintersburg Channel Urban Runoff Diversion, the Romoland Line A Flood System project, the Mill Creek Wetlands and the Cactus Basin all enhance flood system capacity, improve water quality, and provide additional groundwater recharge opportunities within the region. In addition, the Santa Ana Watershed Vireo Monitoring provides data for managing habitat as much of the habitat for threatened and endangered species within the Watershed occurs within the flood right-of-way.

8. Address Statewide Priorities

As part of the project review process, the top rated OWOW projects that were considered ready-to-proceed were reviewed by an independent review panel. One task assigned to the panel was to determine how projects addressed Statewide Priorities. The goal was to select a project portfolio that met Statewide Priorities while meeting other OWOW objectives. This process is discussed in more detail in the workplan. A table summarizing projects and whether they were determined in the review process to meet Statewide Priorities is found below.

Portfolio 4 meets Statewide priorities

	Drought preparedness	Use/reuse water more efficiently	Climate change response actions	Expand environmental stewardship	Practice integrated flood management	Protect surface and groundwater quality	Improve tribal water and natural resources	Equitable distribution of benefits
Cactus Basin	★	★	★	★	★	★		★
IE Brine Line Rehabilitation & Enhancement	★		★			★		★
Sludge Dewatering, Odor Control & Sludge Thickening	★	★	★	★		★		★
Perris II Desalination Facility	★		★			★		★
Chino Creek Wellfield Development	★		★			★		★
East Garden Grove Wintersburg Channel Urban Runoff Diversion	★	★	★	★	★	★		★
Mill Creek Wetlands	★	★	★	★	★	★		
Romoland Line A Flood System	★	★	★	★	★	★		★
Perchlorate Wellhead Treatment System Pipelines	★		★			★		★
Groundwater Replenishment System Flow Equalization	★	★	★			★		★
Arlington Desalter Interconnection	★		★			★		
Impaired Groundwater Recovery	★		★			★		
Santa Ana Watershed Vireo Monitoring	★		★	★				★

